PB87-189379

Superfund Record of Decision (EPA Region 5)
LaSalle Electrical Utilities Site
LaSalle, Illinois, August 1986

(U.S.) Environmental Protection Agency
Washington, DC

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U.S. Department of Commerce
National Technical Information Service
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August 1986

EPA

Superfund Record of Decision:

LaSalle Electrical Utilities, IL

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16. ABSTRACT

The LaSalle Electrical Utilities (LEU) site is located in west-central LaSalle County in the city of LaSalle in north-central Illinois. There are approximately 190 people and 70 residences located within 1/8 mile of the LEU property. LEU, a former manufacturer of electrical equipment, began operating prior to World War II. Between the late 1940s and 1978, PCBs were utilized in the production of capacitors. Undocumented reports allege the application of PCB-contaminated waste oils as a dust suppressant both on and off the property until as late as 1969. Following the regulation of PCBs, manifests document the disposal of PCBs at all regulated facilities. Beginning in September 1975, numerous government agencies conducted various inspections and issued numerous complaints and orders to the LEU company as a result of its manufacturing and handling practices. Soil sampling conducted by the Illinois Environmental Protection Agency (IEPA) in December 1980 documented onsite PCB contamination. Continued soil sampling revealed offsite contamination in March and May 1981 and the IEPA ordered the company to cease operations in May 1981. The U.S. EPA conducted immediate removal actions that involved fencing the LEU property and capping a portion of the heavily contaminated onsite property; capping contaminated offsite property to the south of the site; and staging, sampling and packaging PCB waste material for future disposal. Of the total 28,690 cubic yards of soil contaminated
(See Attached Sheet)

17. KEY WORDS AND DOCUMENT ANALYSIS		
a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field.Group
Record of Decision LaSalle Electrical, IL Contaminated Media: soil Key contaminants: PCBs		
18. DISTRIBUTION STATEMENT	19. SECURITY CLASS (This Report) None	21. NO. OF PAGES 39
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16. ABSTRACT (continued)

above 5ppm, approximately 22,240 cubic yards are offsite on the commercial property immediately to the south and residential property to the east of the site with approximately 27 affected property owners. The primary contaminant of concern is PCB.

The selected remedial action for this site includes: excavation of approximately 25,530 cubic yards of contaminated residential offsite soil and replacement with clean fill; incineration of contaminated soils with a mobile, onsite, thermal destruction unit; and conventional industrial cleaning, which would include vacuuming, hand washing, steam jet cleaning, and adsorption of all structures where soil removal activities have taken place. The estimated present worth cost is $26,400,000 with no annual O&M costs.

USEPA-HQ

REMEDIAL ALTERNATIVE SELECTION

SITE

LaSalle Electrical Utilities Site, LaSalle, Illinois

Documents Reviewed

The following documents which describe the physical characteristics of the LaSalle Electrical Utilities Site, and which analyze the cost-effectiveness of various remedial alternatives have been reviewed by U.S. EPA and form the basis for this Record of Decision (ROD).

- Draft Remedial Investigation Report, January 15, 1986
- Phased Feasibility Study for Remediation of PCB [polychlorinated biphenyl] Contamination at the LaSalle Electrical Utilities Site, August 18, 1986
- Summary of the Remedial Alternative Selection
- Community Relations Responsiveness Summary

Description of Selected Remedy

The selected remedy consists of the following major components:

- Excavation of contaminated residential off-site soils
- Incineration of contaminated soils with a mobile, on-site, thermal, destruction unit
- Industrial cleaning of all structures where excavation occurs

Cost

The estimated cost of the above actions will not exceed a present worth cost of $26.4 million as itemized in the attached Summary of Remedial Alternative Selection.

Declarations

Consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and the National Contingency Plan (NCP) (40 CFR Part 300 et. seq., 47 Federal Register 31180, July 16, 1982), I have determined that excavation of contaminated residential (off-site) soil; incineration of the contaminated soil with a mobile, on-site, thermal, destruction unit; and industrial cleaning of all structures where contaminated soil is removed is a cost-effective interim remedy

(operable unit) and provides adequate protection of public health, welfare, and the environment. The State of Illinois has been consulted and concurs with this remedy. The action will not require future operation and maintenance activities.

I have also determined that the actions described herein are cost-effective when compared to other remedial actions reviewed in accordance with the National Contingency Plan, and are appropriate when balanced against the availability of Trust Fund monies.

The State of Illinois, through the Illinois Environmental Protection Agency (IEPA) is continuing its comprehensive Remedial Investigation/Feasibility Study (RI/FS) for the LaSalle Electrical Utilities property through a cooperative agreement with the U.S. Environmental Protection Agency. The IEPA has already completed a preliminary remedial investigation (RI) which characterized the site, identified significant sources, and preliminarily identified the major migration pathways. The IEPA is planning to complete the remaining tasks of the comprehensive RI/FS in 1986-87 in order to evaluate potential final remedial actions. A Record of Decision will be prepared for approval of the future remedial actions.

August 29th, 1986
Date

Valdas V. Adamkus
Regional Administrator

SUMMARY OF REMEDIAL ALTERNATIVE SELECTION
LASALLE ELECTRICAL UTILITIES

SITE LOCATION AND DESCRIPTION

The LaSalle Electrical Utilities (LEU) National Priorities List (NPL) site is located in west-central LaSalle County, at 2427 St. Vincent Avenue in the city of LaSalle in north-central Illinois (SE 1/4, SW 1/4 of Section 3, T33N, R1E). The 1980 census data showed the City of LaSalle to have a population of 10,347 (Figures 1 and 2).

The topography surrounding the LEU site is nearly level with a relief of approximately 1 foot in 350 feet. Precipitation runoff is to the southeast of the facility through a drainage channel which flows to the Little Vermillion River and ultimately to the Illinois River. Some areas are served by storm sewers which also drain into the same rivers. These rivers are used for recreational purposes, including swimming, boating, and fishing within three miles of the site.

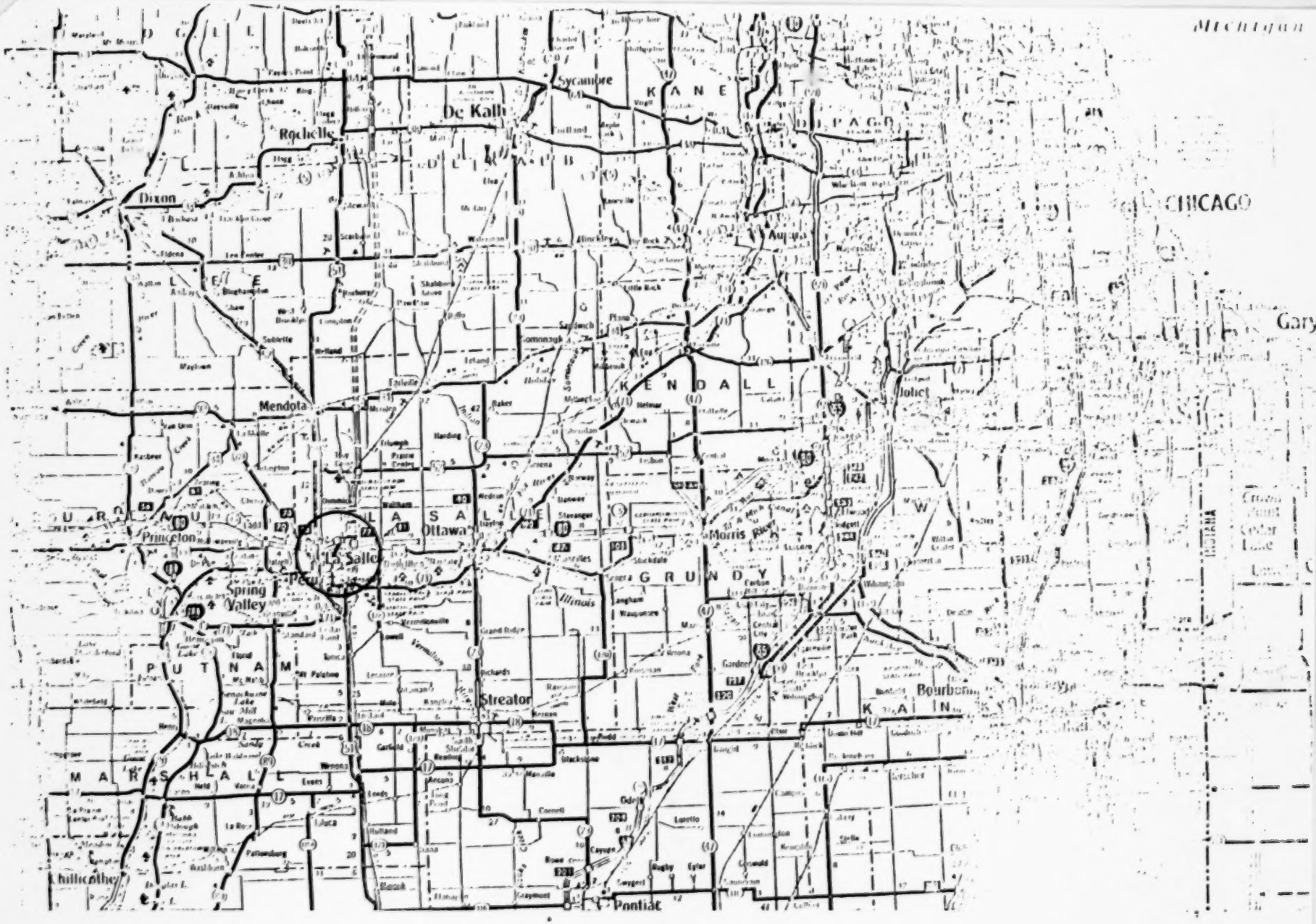
The bedrock in the area consists primarily of shale, sandstone, dolomite, and limestone. The upper bedrock is a highly weathered shale found at a depth of approximately 20 to 25 feet. Overlying the bedrock is approximately 10 feet of glacial till. Over the till is an interbedded unit of sand, silt, and clay.

There are four major hydrogeologic aquifers which occur in this area of Illinois. The Mt. Simon-Elmhurst aquifer, the deepest of the four, is not utilized in the LaSalle area due to its extreme depth and its high mineral content. The next aquifer is the Ironton-Galesville which serves the three public water supply wells in the nearby community of Peru, Illinois. These wells are approximately 2700 feet deep. The shallow dolomite, and the sand and gravel aquifers in the area service many domestic and public wells.

Approximately 70 residences are located within 1/8 mile of the LEU property, or, based on the 1980 census data of approximately 2.7 individuals per household in the area, there are about 190 people. The land use to the north of the property is rural with an agricultural field separating the facility from a residential development. Immediately south of the site are several commercial developments, including a furniture store, a gasoline/fuel oil distributor, and a restaurant. The principal residential area that is affected lies directly east of the LEU property across St. Vincent Avenue.

SITE HISTORY

LEU is a former manufacturer of electrical equipment. Operations at the plant began prior to World War II, and in the late 1940's the plant began utilizing polychlorinated biphenyls (PCBs) in the production of capacitors. This manufacturing practice continued until October 1978. During the 1970's, the company expanded their


Sycamore
De Kalb
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Dixon
Mendota
Princeton
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Bourbonnais
Hillcrest
Illinois
Michigan
CHICAGO
Gary
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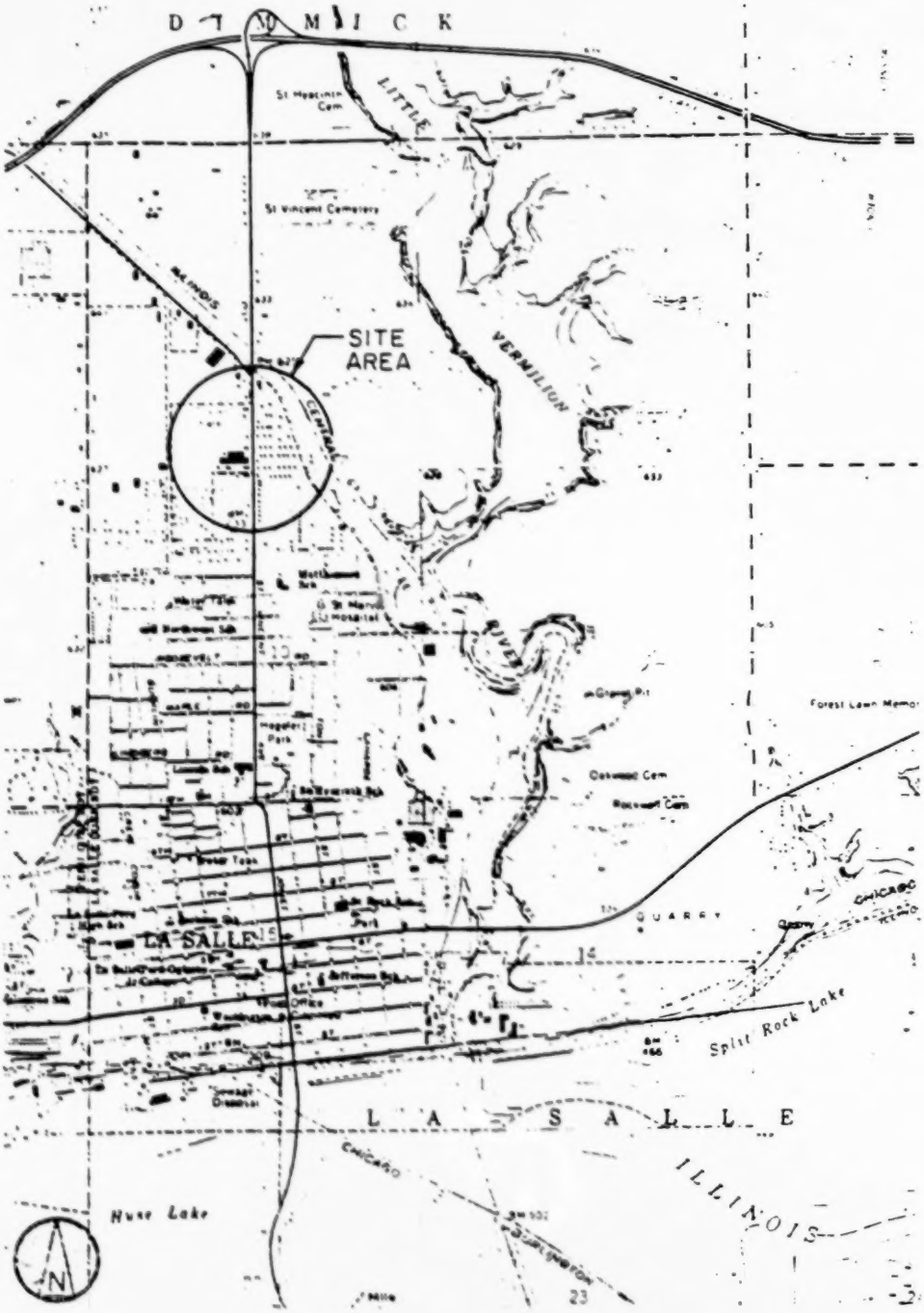
Fig. 1



LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS

FIG. 2

SITE LOCATION

operations and opened another plant in Farmville, North Carolina. In May 1981, the company ceased operations at the LaSalle plant after it was ordered to do so by the Illinois Attorney General and the Illinois Environmental Protection Agency (IEPA). The LaSalle facility has been abandoned since that time.

Information is limited on the waste management practices of the company both on and off the property. Undocumented reports allege that PCB-contaminated waste oils were regularly applied as a dust suppressant both on and off the property as late as 1969. Following the regulation of PCBs, manifests document the disposal of PCBs at all regulated facilities.

Beginning in September 1975, numerous government agencies [including the United States Environmental Protection Agency (U.S. EPA) U.S. EPA, the IEPA, and the Occupational Safety and Health Administration (OSHA)] conducted various inspections and issued numerous complaints and orders to the LEU company as a result of its manufacturing and handling practices both past and present. The following is a chronological listing of those actions:

* September 1975	Cited for inadequate PCB storage facilities by U.S. EPA.
* October 1979	Violation of PCB management practices documented by U.S. EPA and OSHA.
* July 1980	U.S. EPA issues TSCA complaint.
* December 1980	IEPA soil sampling reveals extensive PCB contamination on the LEU property.
* March and May 1981	IEPA soil sampling reveals PCB contamination on area property other than LEU's.
* May 1981	IEPA orders the LEU company to cease operations.
* June to September 1981	IEPA conducts additional soil sampling in the area.
* May 1982	IEPA files a State complaint.
* August 1982	IEPA amends the State complaint and also files a Federal complaint under TSCA.
* August 1982	The U.S. EPA Field Investigation Team installs monitoring wells at the site.
* December 1982	Based on the information gathered to date, the site is included on the first publication of the NPL.

* July 1983	The U.S. EPA conducts an immediate removal action at the site, fences the LEU property, and caps a portion of the LEU property that is heavily contaminated with PCBs.
* July and October 1983	The U.S. EPA conducts additional sampling south of the LEU property. Results indicate heavy contamination on the property immediately to the south of LEU.
* June 1984	The U.S. EPA conducts an immediate removal action at the site and caps the section of the property south of the LEU site which was found to be heavily contaminated.
* June 1984 to July 1985	IEPA conducts additional soil and ground water sampling in the area.
* April 1985	The U.S. EPA conducts an immediate removal action at the site. PCB waste material that had been stored on the site is staged, sampled, and packaged for eventual disposal.
* December 1985	Due to the fact that no incinerators exist which are in compliance with the U.S. EPA's off-site policy, the U.S. EPA cannot yet remove the material that was staged and sampled in April. As a result, the IEPA elects to spend state funds to have the material removed and incinerated at a nearby facility.

On September 19, 1983, now operating exclusively in North Carolina, the LEU petitioned for relief under Chapter 11 of the Bankruptcy Act in the U.S. Bankruptcy Court, Wilson, North Carolina. On June 26, 1986, the Bankruptcy Court entered an order approving the company's planned liquidation under Chapter 11.

CURRENT SITE STATUS

The information gathered in the various investigations and sampling efforts is being used as part of the site's remedial investigation (RI) which is being conducted by the IEPA. That task has not been completed. A draft copy of the RI report was prepared and submitted by the IEPA to the U.S. EPA in January 1986. The report thoroughly evaluated the extent of soil contamination both on and off the site, but it did not adequately evaluate the extent of ground water contamination originating from the LEU property.

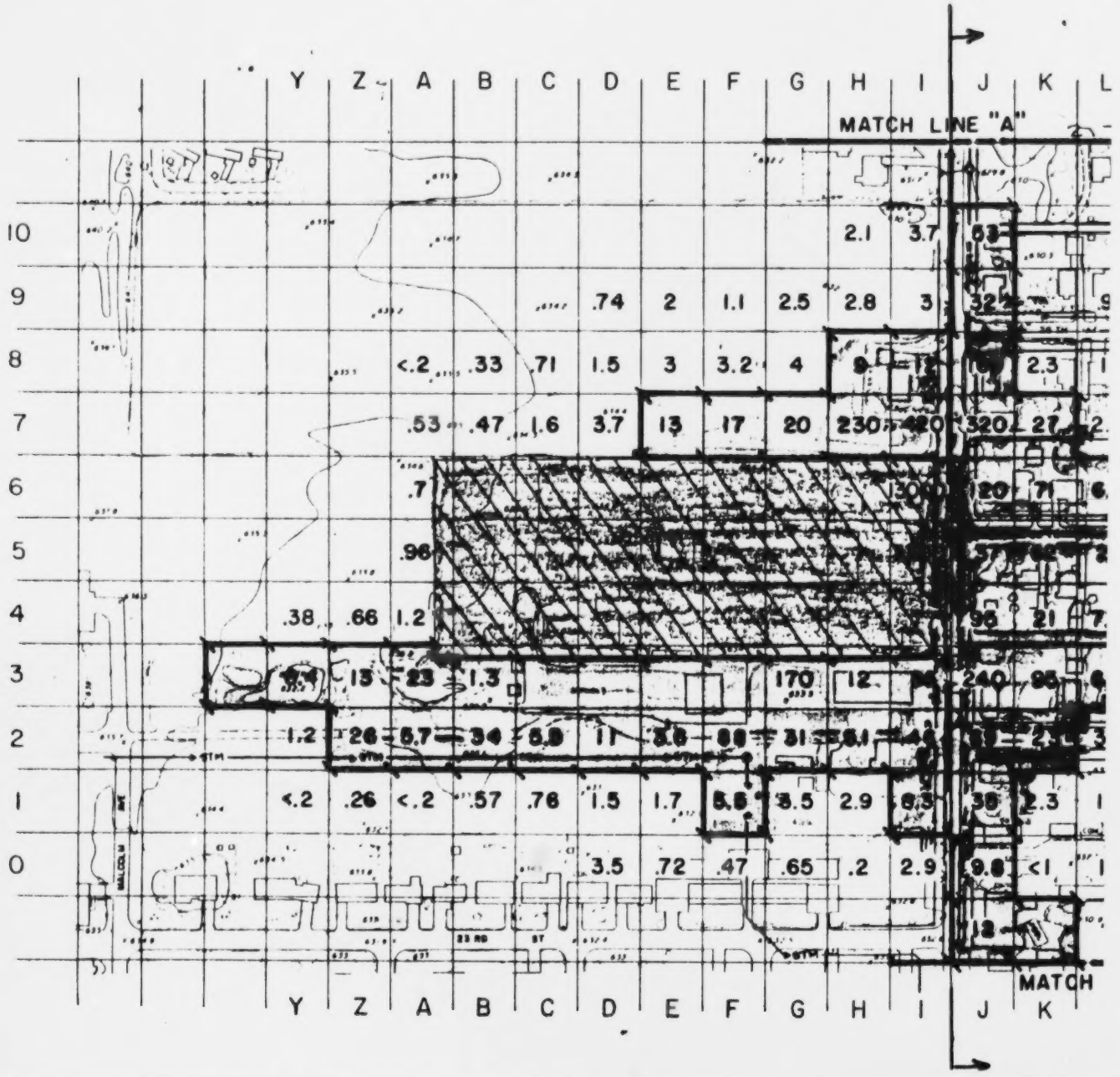
Even though there is not enough information to completely assess the contamination on the LEU property, enough information was gathered to sufficiently characterize the nature and extent of the contamination off the LEU property in the residential neighborhood. No ground water contamination due to the off-site, or residential, soil contamination was identified.

The contaminants of concern in the LEU off-site area are PCBs. No other materials above normal background levels have been detected in this area. PCBs are a family of compounds containing partially or wholly chlorinated isomers of the biphenyl molecule. Commercial mixtures generally contained 40-60 percent chlorine with over 200 possible isomers, although only about 10 of these isomers were ever distributed in the U.S. using an aroclor designation for identification. The PCB mixtures are thermally stable, have low solubility in water, low vapor pressure, high boiling point, and a high dielectric constant. Although relatively insoluble in water, PCBs adsorb strongly to soil, especially those with high organic content.

The specific PCB aroclors found at the site have water solubilities of 54 ug/l for aroclor 1248 and 12 ug/l for aroclor 1254. Because of their high affinity to soil, PCBs are unlikely to leach from the contaminated soil into the ground water. (This is especially true when the concentrations of the contaminants are further minimized by excavation.) The natural affinity of the PCBs to soil also limits the amount of possible contaminant migration from the site. The only significant migration that is likely to occur would be the result of tracking and/or blowing of the contaminated soil from one location to another.

Based on the sampling data, the extent of contamination for the off-site area was determined. The area of contamination includes the shoulders of St. Vincent Avenue for about 1000 feet to the north and approximately 1.2 miles south of the LEU property, the residential area directly east of the site, the small commercial area to the south of the property, and one residence north of the LEU property.

Concentrations of PCBs in the composite soil samples from these areas range from less than 0.20 parts per million (ppm) to as high as 2600 ppm. (The lower limit is the analytical detection limit.) Additional grab samples, from the most heavily contaminated residential yard, revealed a hot spot containing up to 5800 ppm of PCBs. Concentrations typically average about 75 to 125 ppm in most yards in the area. The depths of contamination range from 0 to 12 inches in most areas, to as much as 5 feet at a few heavily contaminated locations. The total volume of soil that is contaminated above the 5 ppm level is approximately 28,690 cubic yards. Of this amount, 6,450 cubic yards are along the shoulders of St. Vincent Avenue; the remainder is on the nearby residential and commercial property (Figures 3 and 4).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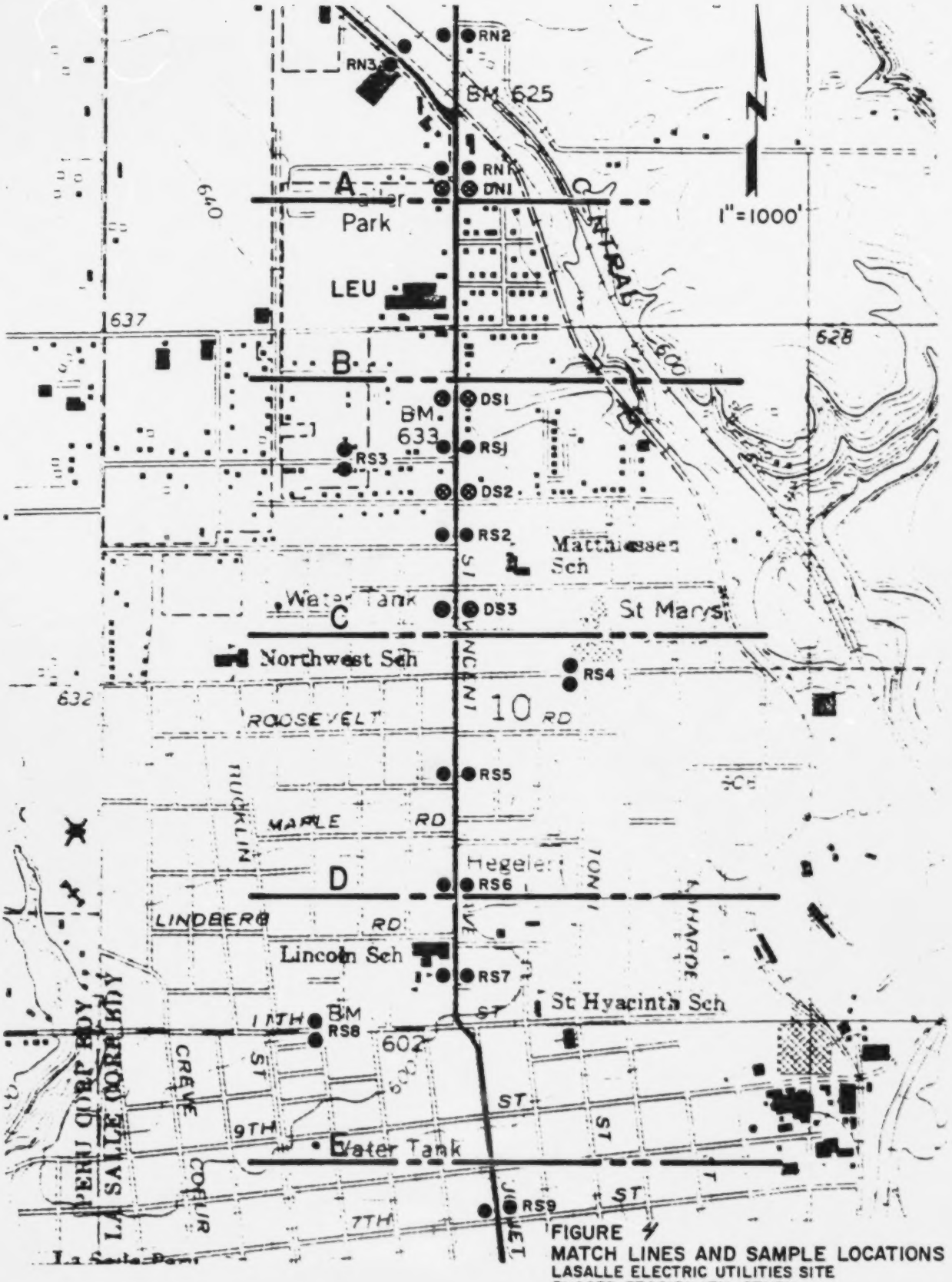

FIGURE 4
MATCH LINES AND SAMPLE LOCATIONS
LASALLE ELECTRIC UTILITIES SITE
PHASED FEASIBILITY STUDY

There are 27 property owners who have contamination in their yards above the 5 ppm level and who will be directly impacted by the phased remedial alternative which has been chosen to alleviate the contamination.

RISKS TO RECEPTORS VIA PATHWAYS

PCBs are considered to have slight acute toxicity, but are resistant to natural biological degradation. The toxicological properties of PCBs appear to vary widely according to various parameters, but they have been identified as carcinogenic, mutagenic, and teratogenic in animals. Human toxicological data is limited, but PCBs have been found to be able to enter the human body by ingestion, inhalation, and dermal contact. PCBs bio-accumulate in lipids and fatty tissues. The USEPA has documented that chronic exposure to PCBs in humans can cause skin lesions (chloracne), liver dysfunction and possible permanent liver damage, and possibly cancer. Other symptoms of systemic PCB poisoning include nausea, vomiting, weight loss, jaundice, headaches, edema, and abdominal pain.

With regard to the ingestion of contaminated soils, the U.S. EPA used the Carcinogen Assessment Group for PCBs and calculated that the daily intake of PCBs should be limited to 2.3 ng/kg-bw/day (nanograms per kilogram of body weight per day) for 1 in 100,000 (10^{-5}) lifetime cancer risk. This intake level corresponds to an acceptable soil concentration of 0.5 to 5.0 ppm. If a 10^{-6} lifetime risk level is chosen, the acceptable range of soil contamination would be 0.05 to 0.5 ppm.

ENFORCEMENT

Present information does not disclose that there are any financially viable parties from which the U.S. EPA could seek reimbursement of costs associated with the investigation and removal of contamination at this site.

The responsible company (LEU) was sold by order of the Bankruptcy Court on January 20, 1984, to Heede Industries for $800,000. The sale did not include the LaSalle plant or property. All proceeds from the sale went to the Lake Shore National Bank in Chicago who had a valid security interest in all of LEU's assets in the amount of approximately $1,908,000. Lake Shore National Bank not only found the purchaser for the LEU Farmville, North Carolina facility, but they also financed the purchase by advancing the purchase price of $800,000 in return for two promissory notes from Heede Industries in the amount of $400,000 each. Lake Shore National Bank also retained its security interest in the LEU accounts receivable to the date of sale, and in the LaSalle, Illinois property.

The U.S. EPA and the State of Illinois both filed claims in the bankruptcy action for past and future costs associated with their removal and remedial actions at the site. There was no money in the estate, however, to pay these costs. The only assets which could be applied toward these costs, was the value of the LaSalle, Illinois property after cleanup. Hence, the amended plan approved by the

Bankruptcy Court on June 26, 1986, provides that the LaSalle, Illinois property first will be offered to secured lien holders (Lake Shore National Bank, Realtor Developers, and Equity Research). If the secured lien holders refuse to accept title, their claims will become unsecured claims, and LEU will retain title to the property. The amended order would then give the U.S. EPA and the State of Illinois liens on the property for the costs of their cleanup work at the site (a lien to the U.S. EPA for 90% of the costs, and a lien to the State of Illinois for 10% of the costs).

ALTERNATIVES EVALUATION

(1) Contaminated Soil

In response to the health threat posed by the site, a Phased Feasibility Study (PFS) was initiated to evaluate the contamination that was found on the residential, or off-site, property. This approach effectively divided the site into two areas; 1) the highly contaminated and fenced LEU property, and 2) the areas of lesser contamination in the residential area and along St. Vincent Avenue north and south of the property. The two areas were separated so that the contamination that is not presently controlled and isolated from the public, but which has been sufficiently characterized and defined, can be addressed while further investigations are completed on the heavily contaminated source area. The high levels of contamination on the LEU property and the property directly to the south warranted the construction of a fence and a temporary cap to secure those respective areas. Similar isolation of the contaminated soils in the residential area was not feasible. Although these soils contain far lower concentrations of PCBs than are on the LEU property, they still present a significant threat to the health of the people in the neighborhood who are regularly exposed to them.

Specifically, the objectives of the alternatives evaluation were: 1) to identify remedial alternatives that would reduce or eliminate the threat to human health and the environment which is present as a result of the PCB-contaminated soil in the residential area, and 2) to identify and evaluate alternatives for cleaning and decontaminating structures on the PCB-contaminated property. To this end, remedial alternatives (as defined in the National Contingency Plan (NCP), 40 CFR Part 300.68 and the U.S. EPA Guidance on Feasibility Studies Under CERCLA) were examined in detail.

Ground water contamination was not addressed in the PFS because the RI data did not show that the residential area contained contaminated ground water or that the area was acting as a possible source of ground water contamination. Even though ground water on the property directly adjacent to and south of the LEU property was found to be contaminated, the RI data identified the LEU property as the source of the contamination. This problem will be further addressed and examined during the final phase of the RI at the site.

Technology Screening and Evaluation

Using the response objective of source control to eliminate the direct contact routes of exposure, potential remedial objectives were assembled and screened. The following technologies were eliminated in the early screening process because they did not meet the NCP criteria of acceptable engineering practices, cost, and/or effectiveness at addressing and remediating the contamination problems at the site.

1. Capping was not examined in detail because it requires long term maintenance and it would be very difficult, if not impossible, to implement in a residential area. Land use restrictions would be required to prevent breaching of the cap; these would be hard to implement and difficult to enforce.

2. Biological degradation of the contaminated soils was not thoroughly evaluated because this process is still considered experimental, and the time required for complete degradation cannot be determined. Also the high chlorine content of the PCBs at the site makes them more resistant to biodegradation.

3. Chlorolysis (a reactive process utilizing chlorine gas) was not examined in detail because it has not yet been proven for large scale applications such as this one.

4. Ozone oxidation (an oxidation process that utilizes a six-to eight-fold excess of ozone gas) was not examined in detail because it has not yet been proven for large scale applications.

5. Ultraviolet radiation was not examined in detail because it has not yet been proven for large scale applications on contaminated soils. Most of the experimental work with this process has been on oils and waste water. Also, this process would require that the PCBs be extracted from the soil before they would be treated.

6. Dechlorination processes were eliminated from the detailed screening because they have not yet been proven for large scale applications on contaminated soils. The only process that is currently available commercially can be used only on oils. This process also would require that the PCBs be extracted from the soil before treatment.

7. Multiple hearth incinerators and electric pyrolysis incinerators were not retained for the detailed evaluation because they are not commercially available at this time, or they could not effectively destroy the PCBs.

8. Three other types of incinerators were also not retained for in-depth evaluation because they have not yet been used and proven on a large scale application. These are: 1) high temperature fluid wall reactor, 2) molten salt incinerator, and 3) plasma arc torch.

9. Solidification/stabilization/encapsulation was not evaluated in detail because these types of processes are not proven in large scale applications to soil, and they often result in a substantial increase in the weight and volume of material that will need to be landfilled.

10. In situ stabilization was eliminated from further screening because it has not been proven, especially for long-term effectiveness.

11. On-site landfilling was not considered appropriate due to the residential nature of the area, the lack of a suitable location, and problems which would be encountered due to the citing requirements of the Resource Conservation and Recovery Act (RCRA).

Alternative Screening and Evaluation

After the technology screening process was completed, five alternatives were examined in detail. In conformance with the NCP and the FS guidance specifications, the alternatives were put into five general compliance categories as follows:

1. The "no action" alternative.

2. Alternatives that attain applicable and relevant Federal and Sate public health or environmental standards, guidance, and/or advisories.

3. Alternatives that exceed applicable and relevant Federal and State public health or environmental standards, guidance, and/or advisories.

4. Alternatives that meet CERCLA criteria for preventing or minimizing the threat to human health and the environment, but which may not attain all relevant or applicable standards.

5. Alternatives that treat or dispose of the hazardous substances at an off-site facility.

With the exception of the no action alternative, all the alternatives would involve soil removal from the residential site area. The soil removal process would be the same for each of these four alternatives. It would include the excavation of soil over the appropriate area and depth in order to achieve the specified cleanup level. The following are brief descriptions of the five alternatives which were evaluated:

Alternative 1: No Action

This alternative provides a baseline against which the adequacy of the other actions can be measured. Under this alternative, the site would be left in its existing state and no funds would be expended for monitoring, controlling, or cleaning up the PCB-

contaminated soil. As a result, there would be no reduction in the contaminant migration from the site, and the potential contact hazards associated with the contamination would not be minimized or eliminated.

Alternative 2: Off-Site Landfill

This alternative would involve the excavation of the soil and the shipment of that contaminated material to a U.S.EPA-approved PCB landfill. This facility would provide long-term containment of the waste material. Following the removal, the site would be returned to its original elevation and grade with clean soil, which would be revegetated or resurfaced as appropriate.

Alternative 3: Off-Site Incineration

In terms of management of the contaminated soils in the residential area, this alternative closely resembles the off-site landfill alternative. This alternative would excavate the contaminated material and the replace it with clean fill, but instead of being stored for an unspecified period of time at a landfill, the material would be shipped to a U.S.EPA-approved commercial incineration facility where it would be destroyed. The residual material could then be used as cover for a sanitary landfill, or as fill for a nearby construction project.

Alternative 4: On-Site Incineration

This alternative also involves the excavation of contaminated material from the site and the replacement with clean fill. However, unlike either of the previous alternatives, the materials that would be removed during the excavation would not be transported off the site over great distances to a disposal or destruction facility. Instead the materials would be thermally treated on the LEU property with a mobile incinerator which would be set up at that location. Provided that analysis of the residual material proves that it is uncontaminated, it could be used as cover material at a sanitary landfill or as fill in roadway and construction projects.

Alternative 5: Temporary On-Site Storage

This alternative involves excavating the contaminated soil, stockpiling that material on the LEU property, placing a synthetic liner over the stockpiled soil, and covering the liner with a layer of clean soil and vegetation. These actions would represent temporary mechanisms to isolate the contaminants from direct human and environmental contact. It is assumed that the stockpile would remain in place only for one to five years until an alternative could be selected and implemented that would permanently manage all of the contaminated material on the LEU property.

The detailed screening process used to select the remedy was performed consistent with the NCP, 40 CFR Part 300.68, U.S.EPA's most recent guidance concerning the selection of remedial alternatives, and other Agency guidance as appropriate. The NCP criteria used in the detailed alternative analysis were:

1. Consideration of established technology and, innovative and alternative technology where appropriate.

2. Detailed cost estimation, including operation and maintenance (O&M) costs.

3. Evaluation of engineering implementation, reliability, and constructability.

4. An assessment of the degree of protection afforded by a given alternative, including the attainment of relevant federal and state standards.

5. An analysis of any adverse environmental impacts.

With the exception of no action (Alternative 1) and temporary on-site storage (Alternative 5), all the alternatives would effectively and permanently minimize the danger to public health and the environment in the residential site area through the removal of the contaminated material.

The off-site landfill alternative (Alternative 2) is conventional, easy to implement, and transfers the operation and maintenance, as well as the long-term safety responsibilities to the owner/operator of the landfill. The most significant disadvantage of this option is that it does not permanently destroy the contaminants. It also may be difficult to maintain the long-term integrity of hazardous waste landfills as required in the U.S. EPA's off-site policy.

The off-site incineration alternative (Alternative 3) offers the advantage of permanently destroying the contaminants in the soil. It is a proven technology that transfers operation and maintenance, along with the safety responsibilities, to the owner/operator of the incinerator facility. The most significant disadvantage of this alternative is that implementation would be very difficult and time consuming. The material must be packaged in small steel or fiber drums for transportation. The facilities available have commitments to their regular clients; therefore, only a small fraction of the monthly operating time could be allocated for destroying the contaminated material from this site. As a result, material would have to be stored on the site and regularly transported to the incineration facility for possibly as long as 10 to 15 years.

As with the off-site incineration alternative, the on-site incineration alternative (Alternative 4) would utilize a proven technology to permanently destroy the contaminants in the soil. The advantages of this alternative are that the transportation and packaging requirements necessary for off-site landfilling or incineration of the contaminated material would be avoided, and all material could be processed in one year or less once the incinerator begins operation. This alternative also follows the U.S. EPA's Off-Site Policy of implementing a remedial action which incorporates treatment, reuse, or recycling rather than land disposal where practical.

A disadvantage of the on-site incineration alternative (Alternative 4) is that any on-site unit would first have to undergo a trial burn before it could be certified for operation. This burn is defined by, and conducted under the supervision of the Toxic Substances Control Act (TSCA) staff. Although this would not be an official permit application, all substantive requirements of the permitting process would have to be addressed. It is quite possible that this certification process may delay the actual operational date of the incinerator.

Another disadvantage of this alternative is even though the contaminated soil would not have to be transported off-site, the residual "clean" material which remains after incineration would still require transportation off-site. Depending on the analytical results of the residual, the material would have to be disposed of in some manner. It is likely that it would not have to be sent to an approved hazardous waste facility, but rather, it could be used for cover material at a sanitary landfill or as fill material on a construction project. Finally, short-term safety hazards associated with incinerator operation would also be introduced into the site area.

Although removal of the contaminated soil would minimize immediate dangers to the public health and the environment in the residential site area, stockpiling of this material on the LEU property (Alternative 5) would provide only temporary and moderately effective isolation of the soil. The technologies associated with on-site storage are conventional, and the operation and maintenance requirements would involve only monthly inspections to check the fence and cap. The most significant disadvantages of this technology are that further management of the wastes would eventually be required, the stockpile may create some short-term safety hazards, and this alternative may not be consistent with the final remedy which is ultimately selected for the contaminated LEU property.

A comparison of the alternatives on the basis of environmental health reveals that the beneficial impact of all but the no action alternative (Alternative 1) would be the same, namely, the removal of the contaminated soils from the residential area. Removal of the soil would reduce the continued exposure to the area residents and the environment, and also the possible future migration of contaminants from the area. There would be no beneficial impacts associated with the no action alternative.

The detrimental environmental effects associated with the soil removal operations would essentially be the same for all the alternatives (Alternatives 2-5). Short-term negative impacts associated with the excavating, loading, and transporting could be minimized by using proper construction methods such as dust suppressants and traffic controls.

Compliance with TSCA and Department of Transportation regulations would minimize the likelihood of any accidental release during transportation to an off-site facility. The detrimental effects associated with the facility itself (fire, explosion, release to the environment, etc.) could be minimized by observing proper safety procedures.

The present worth costs, the annual operation and maintenance requirements, and the implementation times associated with each of these alternatives are presented in the following tables. These costs and implementation times do not account for the time necessary to select and sign a contract with a design firm, or the time required to develop, review, and finalize the design itself. Even though these are merely estimations of the time required to complete the actual site work, they do include contingencies for start-up requirements as well as down time for general maintenance.

Alternative	Total Present Worth Cost (Millions of 1986 Dollars)			
	5 ppm	10 ppm	25 ppm	50 ppm
1) No Action	0.0	0.0	0.0	0.0
2) Off-site Landfill	19.5	13.4	8.6	7.4
3) Off-site Incineration	176.4	120.5	77.0	66.6
4) On-site Incineration	29.6	20.3	13.0	11.2
5) On-site Storage	1.3	1.0	0.8	0.8

Alternative	Total Operation & Maintenance (Thousands of 1986 Dollars)			
	5 ppm	10 ppm	25 ppm	50 ppm
1) No Action	NA	NA	NA	NA
2) Off-site Landfill	NA	NA	NA	NA
3) Off-site Incineration	NA	NA	NA	NA
4) On-site Incineration	NA	NA	NA	NA
5) On-site Storage	21.6	21.6	21.6	21.6

Alternative	Total Implementation Time (Months)			
	5 ppm	10 ppm	25 ppm	50 ppm
1) No Action	NA	NA	NA	NA
2) Off-site Landfill	8	7	6	6
3) Off-site Incineration	168	120	72	60
4) On-site Incineration	12	12	6	6
5) On-site Storage	4-6	4-6	4-6	4-6

As evaluated in the FS, off-site incineration is the most costly alternative. Furthermore, the length of time and the number of trucks necessary to haul the wastes to an off-site incinerator or to a landfill make this alternative impractical for a large amount of waste. More than 1500 truckloads of wastes would be hauled away if 26,000 cubic yards of contamination exist at the site. Because of the logistical difficulty and cost-disadvantage of the off-site incineration or disposal alternative, on-site incineration was screened in more detail.

The State of Illinois, and the U.S. EPA expressed preference for remedial actions that would provide complete destruction of hazardous wastes in lieu of transporting the wastes to a different RCRA approved location. The U.S. EPA's enunciated policy with respect to the use of treatment over land disposal remedial options (see Memorandum from Jack W. McGraw dated May 6, 1985, entitled, "Procedures for Planning and Implementing Off-Site Response Actions") states, "...that, to the greatest extent practicable, consistent with CERCLA requirements for cost-effective remedial actions, EPA pursue response actions that use treatment, reuse or recycling over land disposal." The policy states further that, "...treatment, reuse, and recycling options should not be screened out on the basis of cost alone but should be considered if their cost does not exceed an order of magnitude above the cost of the other alternatives." In this case, the incineration costs are only 50 percent greater than the costs for landfilling the material at an off-site RCRA facility. However, substantially greater protection of human health, welfare, and the environment would result from the permanent destruction of on-site contaminants if the incineration option recommended in this ROD is implemented.

Section 101(24) of CERCLA states that remedial actions should not include the off-site transport of hazardous substances, or the storage, treatment, destruction or secure disposition off-site of such hazardous substances or contaminated materials unless the President determines that such actions (A) are more cost-effective than other remedial actions, (B) will create new capacity to manage (in compliance with subtitle C of the Solid Waste Disposal Act) hazardous substances in addition to those located at the affected facility, or (C) are necessary to protect public health or welfare or the environment from a present or potential risk which may be created by further exposure to the continued presence of such substances or materials.

Thus, U.S. EPA emphasizes the need to consider treatment, recycling and reuse before off-site land disposal of hazardous substances from CERCLA sites is used. In addition, Section 300.68(h)(1) of the NCP provides that remedial alternatives should not be eliminated on the basis of cost alone. Therefore, other longer term benefits should be analyzed when comparing alternatives.

Environmental benefits which accrue as a result of selecting an incineration option over disposal of waste materials in a RCRA Facility are:

1) at least 99.9999% removal from the environment, of the PCBs found in the waste,

2) a project that would terminate within 2 years after start-up,

3) elimination of the risk of release of hazardous substances to the

environment and consequently the complete reduction of the health risk associated with this exposure, and

4) elimination of the need for governmental authorities to perform the environmental monitoring that would be necessary if the wastes were contained on-site or relocated to another site.

The August 19, 1986 memorandum (entitled: "Utilization of Advanced Technologies in CERCLA Remedial Actions") from the U.S. EPA Acting Administrator, J. Winston Porter to Basil G. Constantelos, states that the use of alternative technologies that treat or destroy hazardous wastes is encouraged. The memorandum further states that precedent for this policy can be found in the following documents: 1) the 1984 Hazardous and Solid Waste Amendments, 2) NCP preamble at 50 FR 47921, and 3) the CERCLA settlement policy at 50 FR 5034.

Finally, a review of the CERCLA reauthorization bill out of the House/Senate Conference Committee, indicates that the new law will emphasize a preference for technologies that treat, reuse, recycle, or otherwise destroy the contaminated material. The recommended alternative would be consistent with these provisions of the reauthorized legislation.

(2) Structural Contamination

After the contaminated soil has been removed and replaced with clean soil, it will be necessary to clean or decontaminate the structures (ie. homes, offices, and businesses) in that area. Two factors substantiated the need for such cleaning/decontamination. Not only do previous RI samples document low levels of PCBs in the houses and commercial buildings (see table below), but excavation activities may cause additional contaminated particles to be blown or tracked into the structures.

Interior Sampling Results

Location of Structure (Grid Number)	Location and Type of Sample	PCB Concentration
E/F3	Wipe sample from furnace duct.	0.58 ug/100 cm^2
H/I3	Wipe sample from furnace duct.	<0.3 ug/100 cm^2
J/K0	Wipe sample from water heater.	<0.5 ug/100 cm^2
N1	Sample of vacuum cleaner dust.	13 ppm

All homes or businesses that have excavation work done on their properties will be eligible for structural cleaning at the discretion of the owner. The number of structures will vary based on the the soil cleanup level which is chosen. Because of this, the PFS prepared cost estimates for cleaning/decontamination based on the number of structures which correspond to each of the soil cleanup levels evaluated.

Technology Screening and Evaluation

The PFS evaluated various cleaning technologies for the affected buildings. Based on one or more of the following reasons, many technologies were eliminated during the screening process:

* Not applicable to media or structural surfaces of concern.
* Not proven for PCB-contaminated structures.
* Creates new disposal problems.
* Not a proven technology or still being developed.
* Not applicable to PCBs.
* Long-term effectiveness is unknown.

Alternative Screening and Evaluation

The technologies that were retained after the screening are vacuuming, hand washing, steam cleaning, absorption, and partial dismantling. These technologies were then combined to form three cleaning/decontamination alternatives. The no action alternative was retained to supply a comparison baseline. The remaining two alternatives consist of conventional industrial cleaning and specialized cleaning with replacement of some household items. With one exception, these two alternatives involve the same technologies. However, additional personnel safety equipment will be required for the specialized cleaning with replacement alternative. The following are brief descriptions of the technologies which were evaluated:

Alternative A: No Action

Under the no action alternative, the structures would be left as they are, with no funds expended for cleaning/decontaminating or sampling of the buildings in the contaminated area. Cleaning of the structures would be left to the owners or residents. This alternative presents a baseline against which the adequacy of the other actions can be measured.

Alternative B: Conventional Industrial Cleaning

This alternative would include vacuuming, hand washing, steam jet cleaning, and adsorption. This alternative would address all structures (basements and garages included) where soil removal activities would have taken place. The entire building, including the heating/air conditioning ducts, would be vacuumed. Afterwards, floors and walls would be hand scrubbed and wiped with adsorbent cloths. Other hard surfaces, such as counter tops,

table tops, ceilings, and vertical surfaces of cabinets would be wiped with a damp cloth. Wood floors would be waxed after they are cleaned, and any surfaces that are damaged by the cleaning processes would be refinished or replaced. Carpeting and upholstery would be steam cleaned, while drapes and bedspreads would be dry cleaned under controlled conditions. The exterior walls and the gutters of the structures would be washed by hand. After all affected buildings are cleaned, samples will be collected from a representative number of locations to ensure that the cleaning process was successfully completed.

Alternative C: Specialized Cleaning With Replacement

This alternative would involve procedures that are identical to the conventional industrial cleaning alternative, with two exceptions: 1) workers in this alternative would wear Level C personnel safety protective equipment due to the elevated levels of contaminants, while workers in the preceding alternative would work in Level D, and 2) all fabric and adsorptive materials such as carpeting, couches, chairs, drapes, and bedspreads would be replaced rather than steam or dry cleaned.

The same detailed screening process which was used to evaluate soil contamination alternatives was used to evaluate the structural contamination alternatives.

Cleaning the houses would protect the inhabitants from possible adverse health effects associated with direct PCB contact. The detrimental effects of these procedures are those associated with disposal of the contaminated filters and cleaning materials used. These items would be considered contaminated, and as such, their handling and disposal would require special precautions. The method of disposal selected for these cleaning materials would be consistent with management of the contaminated soil.

In order to minimize exposure to the occupants of the house, as well as to simplify excavation and cleaning activities, all affected residents would be given the opportunity to stay in a nearby hotel/motel while the cleanup activities were being conducted on their property.

The detailed present worth costs associated with all cleaning/decontamination alternatives are presented in the following table. Because this would be a one time activity, there are no operation and maintenance costs associated with the cleaning/decontamination procedures. The time required to implement this task is approximately 3 to 7 days per home for either of the cleaning alternatives.

Alternative	Total Present Worth Costs (Thousands of 1986 Dollars)			
	5 ppm	10 ppm	25 ppm	50 ppm
A) No Action	0.0	0.0	0.0	0.0
B) Conventional Industrial Cleaning	78.4	64.3	53.0	43.4
C) Specialized Cleaning With Replacement	883.6	747.5	605.5	500.8

Due to the fact that the structural contamination was primarily caused by fugitive dust and other tracking from contaminated areas, the levels found indoors were relatively low. Of the three wipe samples collected, only one was above the selected cleanup level of 0.5 ug/100 cm^2. For these reasons it would not be cost-effective to select the specialized cleaning with replacement alternative (Alternative C). However, because PCB contamination was found indoors, and because the excavation activities will cause a significant increase in dust migration into the structures, cleaning is necessary and the no action alternative (Alternative A) would not effectively protect the health and welfare of the residents at risk.

RECOMMENDED ALTERNATIVE

The National Oil and Hazardous Substances Contingency Plan (NCP) [40 CFR Part 300.68(j)] states that the appropriate extent of remedy shall be determined by the lead agency's selection of the remedial measure that is determined to be cost-effective and that effectively mitigates and minimizes damage to the the public health, welfare, and the environment. Based on the evaluations conducted during the PFS, the comments received from the public, and the State and Federal environmental requirements, the recommended alternative for this site was chosen. The alternative which was determined to most effectively remedy the contamination problem at this site, consists of on-site incineration (Alternative 4) with subsequent, industrial cleaning of the affected buildings (Alternative B).

Both of these alternatives are consistent with, would not interfere with, and would not adversely effect any final remedy selected for the contaminated LEU property.

The selection of an appropriate cleanup level was complicated for this site because of the cleanup alternative which was chosen; namely excavation of the contaminated soil. Once the contaminated soil is excavated to the chosen level, the area would be filled with clean, uncontaminated material. So in essence, the chosen cleanup level would not only result in the removal of all contaminated material above that level, but it would also result in the placement of clean fill over the remaining minimally contaminated material. This clean fill would further reduce the potential risk to the health of the residents in the area.

Currently, there are no set cleanup standards for PCBs in soils. However, there are two policies in draft form which address this issue. These are as follows:

1) The Draft National TSCA cleanup policy for PCB Spills recommends 10 ppm in high contact soils such as those in residential areas. That same policy document specifies that low contact soils which are normally found in isolated areas may contain PCB concentrations up to 500 ppm.

2) The U.S.EPA Office of Research and Development's advisory levels for PCB cleanups at Superfund sites are based on a May 1986 study by the Office of Health and Environmental Assessment (OHEA). The OHEA study concludes that for some spill scenarios, for a 1 to 10 day ingestion and inhalation exposure to the contaminated soils, the PCB concentration may need to be limited to about 1 to 2 ppm to protect against non-carcinogenic effects. For lifetime carcinogenic risks not exceeding 10^{-5}, exposure to the same material may need to be limited to 0.8 to 2.0 ppm. The OHEA assessment also notes that with about 10 inches (25 cm) of cover, these levels could be increased about 2 to 10 fold.

In order to meet the requirements of the developing cleanup policies, the LaSalle operable unit should utilize a 5 ppm soil cleanup level. However, in order to meet the intent of those requirements, and due to the nature of the composite sampling methods which were used during the field investigation, a minimum of 3 inches of soil must always be excavated when the 5 ppm contamination level is exceeded in the surface soils.

In areas where contamination greater than 10 ppm still exists after the excavation of 12 inches of soil, the excavation should be continued until a 10 ppm level in the soil is attained. This approach, which is based on the developing policies and advisory levels, will limit the amount of deep excavation required, while it will ensure that that the entire area has a minimum of 12 inches of clean fill material above soil that is contaminated by 10 ppm or less PCBs. As a result of this approach, there will typically be 12 inches of clean fill over soil contaminated by about 5 ppm PCBs.

Only those residential yards that have soil contamination levels above the chosen cleanup level would be excavated and filled with clean material. As a result, a number of homes in the area would be left with contamination in the soil which is neither removed or covered with clean fill. The levels in the soil of these homes would be below the excavation level, but above the 1 ppm level. The risks to these residents would be greater than to the residents who would have had excavation and fill work done in their yards.

In those few instances where no excavation work is done on the property, the PCB levels in the top three inches of soil (surface soil) would typically be in the 1 to 3 ppm range. The risks to these property owners would be greater than the risks where the excavation has occurred, but it will not be significantly higher than the level associated with the OHEA recommended contamination level of 0.8 ppm.

The actual excavation depths for the project would be determined during the design phase by the selected Architect/Engineering firm. The design depths would be determined on a house-by-house or grid-by-grid basis. In order to ensure that the selected cleanup levels are met, the excavation plans will be approved by the U.S.EPA prior to work being performed at the site.

On the issue of decontamination of high contact surfaces within the affected homes, the most recent draft TSCA PCB spill policy has proposed a decontamination target of 0.5 ug/100 cm^2. High contact areas in homes or commercial areas are defined as floors, doors, walls below six feet, and vertical surfaces of cabinets and counters. The same policy has targeted a cleanup level of 10 ug/100 cm^2 for other surfaces having infrequent contact, such as the exteriors of the buildings. These will be the cleanup levels that will be used for the cleaning/decontamination of the affected buildings.

The costs associated with the recommended alternatives were evaluated during the Final editing of the PFS. Previous versions of that study only evaluated discrete cleanup levels and not a composite cleanup level which was finally selected. The actual costs associated with this cleanup level are approximately 10 percent less for all alternatives evaluated. This can easily be seen by comparing these costs to the costs as previously presented. Likewise the total soil removed will also be reduced by approximately 10 percent when the recommended cleanup level is evaluated. Instead of having to excavate and incinerate 28,690 cubic yards of material to achieve a total 5 ppm cleanup, only 25,530 cubic yards will have to be handled with the selected cleanup level.

Alternative	Total Present Worth Cost (Millions of 1986 Dollars)				
	5/10 ppm*	5 ppm	10 ppm	25 ppm	50 ppm
Off-site Landfill	17.5	19.5	13.4	8.6	7.4
Off-site Incineration	157.1	176.4	120.5	77.0	66.6
On-site Incineration	26.4	29.6	20.3	13.0	11.2
On-site Storage	1.2	1.3	1.0	0.8	0.8
No Action	0.0	0.0	0.0	0.0	0.0

* Note: 5/10 ppm is the recommended cleanup level of 5 ppm up to 12 inches, and 10 ppm at depths greater than 12 inches.

Section 104(c)(3) of CERCLA sets forth the State financial responsibilities in remedial actions provided under CERCLA. The State of Illinois' financial responsibilities in the proposed remedial action would include payment, or assurance of payment, of 10% of the costs of the remedial action.

OPERATION and MAINTENANCE

The recommended alternative involves no operation and maintenance in the residential area where the soil removal and building cleaning would be conducted. Once these activities are completed, no further work would be required. However, there would be some maintenance and operating costs associated with the start-up (including the trial burn) and operation of the mobile incinerator on the LEU property to destroy the contamination in the excavated soils. These costs would be limited to the period of time when the incinerator would be operating, which has been estimated to be only one year, and are included in the present worth cost estimate.

COMMUNITY RELATIONS

The Superfund activities at the LaSalle site have been followed closely and consistently by the local press. Interest in the activities at the site has been high because the residential area is directly affected. Local and state elected officials, as well as the local news media representatives, have maintained a constant and serious interest in both the activities at the site and the future work plans for the area.

During the first week of June 1986, all the residents in the area that could potentially be affected by the selected alternative were interviewed by representatives of the IEPA and the U.S.EPA. The purpose of the interviews was to gather information from the residents concerning their feelings and concerns about the proposed work in their neighborhood and, in most cases, their homes. At the same time all of the residents were brought up-to-date on the status of the site and the alternatives that were being considered during the PFS.

On June 30, 1986, draft copies of the PFS report were made available to the residents and any other interested parties for their review and comment. A press release by the IEPA announced the availability of the report, the locations in the community where it was available for viewing, the dates of the official public comment period (June 30 - July 30, 1986), and the July 17, 1986 public hearing.

During the week of July 7, 1986, the IEPA again visited with residents and local officials from the area to discuss the results of the PFS and the alternative that was being recommended for implementation. These small informal talks were held with two to eight people at a time, so that the residents and officials could discuss the project and their concerns in detail.

On July 17, 1986, a public hearing was held at the nearby Howard Johnson Motor Lodge conference room. The meeting was attended by some of the area residents, a few members of the local media, and some state and local elected officials. The IEPA presented the results of the PFS; recommended the removal of the contaminated soils and the use of an on-site, mobile incinerator to destroy the contamination in those soils; answered questions; and accepted public comments.

The residents' major concern was that the project should begin soon, and that it should be completed once it is started. Some people were concerned that the yard excavation would begin, and then be left unfinished if funding ran out. The IEPA assured the residents that the work would not begin until sufficient funds were available to complete it. A few of the residents questioned the safety of the ground water, and how these actions would affect its quality. The IEPA informed the residents that ground water contamination in this project area was currently not a problem, and that they (IEPA) would thoroughly determine the exact extent of this problem during the remainder of the remedial investigation. The City of LaSalle expressed its support for the recommended alternative.

The Responsiveness Summary to the formal public comments which were received during the public comment period is attached to this summary (Attachment 1).

CONSISTENCY WITH OTHER ENVIRONMENTAL LAWS

All the alternatives examined in detail were designed to be fully compliant with applicable environmental laws. The Toxic Substances Control Act (TSCA) entered most prominently into the analysis. These regulations require that PCB contaminated soil in concentrations greater than 50 ppm must be taken to a TSCA regulated disposal facility (landfill or incinerator). Therefore, all off-site facilities would require compliance with TSCA. TSCA also requires that incineration of PCB waste must be able to meet a destruction removal efficiency of at least 99.9999 percent.

The emission control requirements of the Clean Air Act may be applicable to emissions from the incinerator depending on the magnitude of the emissions. Parameters of concern are sulphuric oxides (SO_x), nitric oxides (NO_x) gases and particulates. Costs for air pollution control equipment have been included in the total cost for the recommended remedial action.

The CERCLA Off-Site Policy as published in the Federal Register on November 5, 1985, prohibits the use of any facility that has significant Resource Conservation and Recovery Act (RCRA) or TSCA violations, or other environmental conditions that effect the satisfactory operation of the facility. Therefore, all off-site facilities would have to be in conformance with this policy.

The recommended alternative for this site meets the cleanup criteria set by the State of Illinois, and would fully comply with all applicable federal standards.

SCHEDULE*

The following schedule of activities for the recommended alternative has been supplied by the IEPA, the lead agency for the site.

Approval of Remedial Action (ROD)	08/29/86
Design Award (notice to proceed issued)	09/26/86
Design Completion	12/19/86
Award Contract For Construction	03/13/87
Begin Cleanup Work	05/13/87
Complete Cleanup Work (Excavation and Building Cleaning)	08/01/87
Complete Cleanup Work (Incineration of Excavated Soils)	05/16/88

* This schedule will be effective only if funds are available for this site. If new funding is not available, a new schedule will have to be developed.

FUTURE ACTIONS

A work plan detailing the additional RI work necessary will be developed and implemented by mid-September. This work will address the ground water contamination problem which is the result of the severe soil contamination problem on the LEU property. A Feasibility Study of alternatives to remedy those problems will be developed, and then one alternative will be chosen and implemented. The recommended alternative for dealing with the LEU source area should be chosen by approximately September 1987.

ATTACHMENT 1

Community Relations Responsiveness Summary

Electrical Utilities Company

LaSalle, Illinois

August 1986

COMMUNITY RELATIONS RESPONSIVENESS SUMMARY
ELECTRICAL UTILITIES COMPANY
LASALLE, ILLINOIS

The Illinois Environmental Protection Agency (IEPA) conducted the community relations program at this site. Community relations activities continued throughout the remedial investigation and feasibility study.

During the phased feasibility study, a three week public comment period (July 8 -- July 29) was established to receive public comment about remedies for managing contamination found in residential areas. A public hearing was held on July 17 to discuss these remedies. This responsiveness summary documents citizen concerns expressed during the comment period and IEPA's response to those concerns.

Another public hearing and public comment period will be held to discuss remedies for managing contamination found on the Electrical Utilities property. The additional hearing and comment period will be held after the feasibility study for the EUC property is complete. A separate responsiveness summary will be prepared and distributed following that comment period.

Introduction

Polychlorinated biphenyls (PCBs), used in the manufacture of electric capacitors, are present in the soil of a portion of the residential area east of the EUC plant, in the commercial property south of the plant, and in a small portion of the farm field to the north. In addition, PCBs are in the soil north and south along St. Vincents Road.

Five remedies are proposed for managing this PCB contaminated soil: landfill; on-site incineration; off-site incineration (outside LaSalle County); temporary storage; and no-action.

Community sentiment is virtually unanimous in support of the remedy preferred by IEPA--mobile incineration. A question expressed by several in the community, including city officials, regards the level of noise that will be generated when the incinerator is in operation. Residents are not opposed to off-site incineration, but are skeptical that USEPA would approve this remedy because of the high cost.

Two of the other remedies, landfill and "no action," received no support and would not be accepted by the community judging from verbal comments from residents during the remedial investigation and feasibility study.

Temporary storage was not supported by the community. However, this remedy might be acceptable if storage did not exceed six months. Primary community concerns are for residential property values and for attracting a new business to the EUC site. Landfill and "no-action" conflict with these community concerns.

Community Involvement

Community relations commenced with a joint presentation by IEPA and USEPA officials at a City Council meeting in January, 1984. Through personal interviews, "living-room meetings," and public meetings, the following issues were identified as concerns of the citizens during the remedial investigation.

Effect on business--Several small businesses are located in the immediate vicinity of the EUC site. Business owners are concerned about how present and potential customers are reacting to the news that PCB contamination exists in the area.

One businessman has been refused liability insurance. Insurance companies are citing PCB contamination and underground storage tanks as the reason.

Property values - According to residents, residential property values have diminished in one area near the EUC site. Residents feel that once cleanup at the EUC site is completed, property values will increase. Removal of approximately 260 fifty-five gallon drums containing PCB and drainage of a tank containing trichloroethylene in February, 1986, did not affect property values according to residents.

Health effects--PCB contamination in residential yards raised questions about potential health effects to both present and future generations. Officials from the Illinois Department of Public Health and the IEPA went door-to-door when PCB levels were identified to discuss the impact of the PCBs in residential yards.

During the public comment period, a public hearing was held to discuss each of the proposed remedies. The hearing was held on July 17, at the Howard Johnson Motor Lodge, Route 80 & 51, in LaSalle beginning at 7:00 p.m. A written statement was presented from the City of LaSalle. Approximately 15 of the 35 in attendance asked questions. Beginning two weeks before this hearing, six small group meetings were held with residents, elected officials, and the news media to discuss specific questions about the proposed remedies.

Summary of Comments and IEPA Response

Issue: Superfund Program

QUESTION: Are the residential yards considered part of the EUC site listed on the National Priority List?
RESPONSE: Yes

QUESTION: Who pays for the remedies implemented as part of the EUC cleanup?
RESPONSE: The federal government will provide 90% of the cost through the Superfund program and the State of Illinois will pay the remaining 10%. There will be no charge to homeowners and residents of LaSalle. The Electrical Utilities Company has filed bankruptcy, and no further assets exist.

QUESTION: Property values have decreased as much as 30% at some residences near the EUC site. Does the Superfund program provide relief for those who are trying to sell their property before the cleanup is completed?
RESPONSE: A home buyout, similar to the one in Times Beach, Missouri, is not likely. Furthermore, there is no language in the federal law that provides reimbursement for declining property values.

QUESTION: Once yard excavation begins would the project stop?
RESPONSE: No, When USEPA approves a remedy, it will allocate sufficient funds before the project begins to complete it.

QUESTION: When will Superfund money be available for the EUC project?
RESPONSE: Superfund is presently depleted. Superfund must be reauthorized by Congress before federal money would be available for the EUC site.

Issue: Soil Contamination

QUESTION: Is yard excavation mandatory?
RESPONSE: No. Each homeowner who has significant concentrations of PCB will be offered yard excavation and internal housecleaning as an option. IEPA encourages all affected homeowners to take advantage of this offer.

QUESTION: What is the smallest concentration of PCB that will be removed from residential yards?
RESPONSE: The IEPA and USEPA considered four different concentrations. Each concentration is measured in parts per million. These concentrations are 50, 25, 10 and 5 ppm. PCB concentrations that equal or exceed 5 ppm will be excavated.

QUESTION: How many tons of contaminated soil will be removed from residential yards?
RESPONSE: Approximtely 29,000 cubic yards (equivalent to 36,000 tons) will be excavated.

QUESTION: Do any homes south of 23rd Street have excessive concentrations of PCB.
RESPONSE: No.

QUESTION: How did PCB contamination reach residential yards?
RESPONSE: PCBs were probably transported on the bottom of shoes worn by EUC employees and on tires of vehicles leaving the EUC property. Some PCBs were carried by the winds from the EUC parking lot. However, wind deposition alone does not account for the concentrations found in residential yards. The IEPA is not sure how all the PCBs reached residential yards. If oil was sprayed on roads, this may have contributed to the problem.

QUESTION: To what depths were residential yards sampled to determine the extent of contamination?
RESPONSE: Five feet, but virtually all measurable concentrations of PCBs were found in the top 10 inches of soil.

QUESTION: How were residents first notified about the results of PCB sampling in yards?
RESPONSE: Officials from the Illinois Department of Public Health and the IEPA went door-to-door in March, 1985, to inform residents about the results of PCB sampling.

Issue: Internal House Cleaning

QUESTION: How many homes are eligible for the internal house cleaning option?
RESPONSE: Approximately 20 homes. All homes that have soils excavated will be eligible for the cleaning.

QUESTION: If homeowners of each eligible home request internal house cleaning, what would be the total cost?
RESPONSE: The combined cost for all of the homes would be about $80,000.

QUESTION: How did PCBs get into homes?
RESPONSE: Most likely from blowing dust and on the bottom of shoes.

Issue: Remedies

QUESTION: What will happen to dirt from residential yards if it is incinerated?

RESPONSE: If contaminated dirt is incinerated, the ash would probably be used as clean fill for a construction project. It may also be suitable for landfill cover. The dirt would not be used in the yards from where it is excavated. After incineration, the dirt would not contain sufficient quantities of nutrients needed to grow grass or crops. The incinerated dirt would be thoroughly analyzed to ensure that it no longer contains contamination.

QUESTION: Would contaminated soil be landfilled in LaSalle County?
RESPONSE: No.

QUESTION: If a mobile incinerator is approved by USEPA, would the State of Illinois own the incinerator?
RESPONSE: No. The State would contract this service through competitive bidding from firms experienced in the use of mobile incinerators.

QUESTION: What is the burn rate of mobile incinerators?
RESPONSE: Five tons per hour, but this rate can vary depending on the size of the incinerator.

QUESTION: How long are the mobile incinerators?
RESPONSE: The primary chamber is approximnately 25 to 30 feet in length and the secondary chamber, which does not rotate, is approximately 30 to 40 feet in length.

QUESTION: Where is the closest stationary incinerator capable of safely burning PCB?
RESPONSE: The SCA Incinerator in Calumet City, Illinois.

QUESTION: What is emitted from an incinerator when PCB material is burned?
RESPONSE: An air plume containing carbon and water vapor will be visible from the surrounding neighborhood. PCB concentrations in this air plume will be less than .0001 parts per million.

QUESTION: How will air emissions be monitored?
RESPONSE: Air emissions will be monitored automatically while the incinerator is in operation by equipment designed to analyze the contents of the air plume before it reaches the atmosphere. In addition, a person trained in reading air emissions and operating air monitoring equipment will be on-site to make sure that the air monitoring equipment is functioning properly.

Issue: Groundwater

QUESTION: Has contamination been found in the groundwater?
RESPONSE: Yes. Trichloroethylene, an industrial degreaser, has been found in groundwater under and near the site.

QUESTION: How did trichloroethylene (TCE) get into the groundwater?
RESPONSE: TCE was either spilled or dumped onto the ground when the EUC site was in operation. A tank on the EUC property contained TCE which was drained and hauled off-site in February, 1986, to prevent additional quantities of TCE from reaching groundwater.

QUESTION: Is our drinking water safe?
RESPONSE: Yes. Virtually all the residents in the vicinity of the EUC site have hook-ups to the LaSalle public water supply which is not endangered by TCE or PCB from this site. A survey conducted by the IEPA identified 3 wells on Edwards Street still used for drinking water. These wells, and any other wells within 1/2 mile of the EUC site, will be sampled. Residents living within 1/2 mile of the EUC site who still use their private well are urged to contact the IEPA.

QUESTION: If a deeper well is drilled, would it be safe from TCE contamination?
RESPONSE: A groundwater study is being conducted by Black & Veatch. When the study is complete we should know if deeper aquifers are protected or connected to shallow groundwater in this vicinity.

Remaining Concerns

IEPA anticipates a variety of questions and concerns to arise during yard excavation. Some of these questions and concerns may be resolved before excavation begins. For example, a particular bush may have sentimental value or special appeal, therefore, the IEPA should communicate this concern to the contractor so that plans can be made to protect this bush during excavation. In an effort to identify these special concerns, the IEPA is planning a door-to-door meeting with affected property owners during the design phase.

Some questions and concerns will arise unexpectedly during excavation. These include access to homes, weather delays, transportation routes, and accommodations. News media coverage of the excavation may extend beyond LaSalle County, and is likely to involve video-taping for television stations

as well as still photographs for newspapers. A news conference will be planned for the start of excavation. During the excavation, community relations staff will be in LaSalle to assist residents with special needs. A news release and personal letter will be distributed which provides the location and telephone number where IEPA staff can be reached in LaSalle.

Groundwater will continue to be sampled to determine the extent of contamination. The results of this additional work will be available at the LaSalle Courthouse after analyses of groundwater sampling is complete, and will be discussed at the next public hearing about remedies for on-site contamination.

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